Habitat Restoration

CALFED Bay-Delta Program Alternatives

Summary of Actions

Habitat Restoration[1]	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	Alternative H	Alternative I	Alternative J
Restore Delta shallow water habitat										
• Leveed to tidal action (acres)	800 to 1,200	4,000 to 6,000	4,000 to 6,000	4,000 to 6,000	8,000 to 12,000	8,000 to 12,000	4,000 to 6,000	4,000 to 6,000	4,000 to 6,000	8,000 to 12,000
• As part of levee reconstruction (miles)	50 to 100	50 to 100	50 to 100	50 to 100	50 to 100	50 to 100	50 to 100	50 to 100	50 to 100	50 to 100
Restore Delta riparian habitat										
• Improve riparian conditions (acres)	75 to 125 (core: 200 to 400)	500 to 700 (core: 200 to 400)	500 to 700 (core: 200 to 400)	500 to 700 (core: 200 to 400)	500 to 700 (core: 200 to 400)	1,400 to 1,600 (core: 200 to 400)	500 to 700 (core: 200 to 400)	500 to 700 (core: 200 to 400)	500 to 700 (core: 200 to 400)	1,400 to 1,600 (core: 200 to 400)
• Acquire/establish new habitat (acres)	400 to 800	1,000 to 2,000	1,000 to 2,000	1,000 to 2,000	1,000 to 2,000	4,000 to 5,000	1,000 to 2,000	1,000 to 2,000	1,000 to 2,000	4,000 to 5,000
• Improve using modified levee maintenance practices (% eligible levees)	--	--	--	--	--	10 to 15 (core: 15 to 25)	--	--	--	10 to 15% (core: 15 to 25%)
Restore Delta non-tidal wetland habitat										
• Protect/enhance existing wetlands (acres)	--	200 to 400 (core: 100 to 300)	200 to 400 (core: 100 to 300)	200 to 400 (core: 100 to 300)	200 to 400 (core: 100 to 300)	200 to 400 (core: 100 to 300)	200 to 400 (core: 100 to 300)	200 to 400 (core: 100 to 300)	200 to 400 (core: 100 to 300)	200 to 400 (core: 100 to 300)
• Convert suitable lands to wetlands (acres)	--	3,000 to 5,000	3,000 to 5,000	3,000 to 5,000	3,000 to 5,000	5,000 to 7,000	3,000 to 5,000	3,000 to 5,000	3,000 to 5,000	5,000 to 7,000
Restore Delta terrestrial habitat										
• Protect/enhance existing uplands (acres)	--	600 to 1,000 (core: 1,200 to 2,000)	600 to 1,000 (core: 1,200 to 2,000)	600 to 1,000 (core: 1,200 to 2,000)	600 to 1,000 (core: 1,200 to 2,000)	3,000 to 4,000 (core: 1,200 to 2,000)	600 to 1,000 (core: 1,200 to 2,000)	600 to 1,000 (core: 1,200 to 2,000)	600 to 1,000 (core: 1,200 to 2,000)	3,000 to 4,000 (core: 1,200 to 2,000)
Restore Suisun Bay habitat										
• Restore tidal wetlands (acres)	750 to 1,250	1,500 to 2,500	1,500 to 2,500	1,500 to 2,500	1,500 to 2,500	4,000 to 6,000	1,500 to 2,500	1,500 to 2,500	1,500 to 2,500	4,000 to 6,000
Restore Sacramento River (Verona to Collinsville) and Delta channel riverine habitat										
• Set back levees/restore cross sections (miles)	--	40 to 60	40 to 60	40 to 60	40 to 60	100 to 125	40 to 60	40 to 60	40 to 60	100 to 125
• Reconstruct banks and shallow habitat (miles)	50 to 75	75 to 100	75 to 100	75 to 100	75 to 100	100 to 150	75 to 100	75 to 100	75 to 100	100 to 150
• Protect/enhance channel island riverine habitat (acres)	300 to 500 (core: 500 to 1,000)	750 to 1,250 (core: 500 to 1,000)	750 to 1,250 (core: 500 to 1,000)	750 to 1,250 (core: 500 to 1,000)	750 to 1,250 (core: 500 to 1,000)	1,500 to 2,000 (core: 500 to 1,000)	750 to 1,250 (core: 500 to 1,000)	750 to 1,250 (core: 500 to 1,000)	750 to 1,250 (core: 500 to 1,000)	1,500 to 2,000 (core: 500 to 1,000)
Restore upstream Sacramento River and tributaries' riverine features										
• Restore/enhance riparian vegetation (miles; Verona to Colusa)	--	20 to 40	20 to 40	20 to 40	20 to 40	25 to 75	20 to 40	20 to 40	20 to 40	25 to 75
• Relocate levees	--	--	--	--	--	prioritized areas[3]	--	--	prioritized areas	prioritized areas
• Establish meander belts above Colusa (miles)	--	--	--	--	--	20 to 40	--	--	20 to 40	20 to 40
• Restore habitat above Colusa (acres)	--	--	--	--	--	6,000 to 7,000 (core: 2,000 to 4,000)	--	--	--	6,000 to 7,000 (core: 2,000 to 4,000)
Restore upstream San Joaquin River and tributaries' riverine features										
• Restore channel configurations/depth and temperature improvements (miles)	--	25 to 35	25 to 35	25 to 35	25 to 35	30 to 50	25 to 35	25 to 35	25 to 35	30 to 50
• Isolate in-channel quarry areas from mainstem river and tributary flows	--	prioritized areas	prioritized areas	prioritized areas	prioritized areas	prioritized areas	prioritized areas	prioritized areas	prioritized areas	prioritized areas

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Summary of Actions

Habitat Restoration[1]	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	Alternative H	Alternative I	Alternative J
Restore floodway corridor habitat										
• Convert agricultural lands to wetland habitat (acres)	5,000 to 7,000	5,000 to 7,000	5,000 to 7,000	5,000 to 7,000	5,000 to 7,000	7,000 to 12,000	5,000 to 7,000	5,000 to 7,000	5,000 to 7,000	7,000 to 12,000
• Reduce fish stranding (percent reduced)	--	30%[2]	30%[2]	30%[2]	30%[2]	50%[2]	30%[2]	30%[2]	30%[2]	50%[2]
Fish Protection and Transport[1]										
• Develop improvements at the head of Old River	Y	Y	Y	Y	Y	Y	Y	--	--	--
• Continue acoustic barrier evaluation at Delta Cross Channel	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element
• Install fish screens on prioritized diversions in Delta, rivers, & tributaries	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element
• Improve fish screening at existing diversions	Y	Y	Y	Y	Y	Y	--	--	--	--
• Construct new screened intake for the State Water Project at Italian Slough	Y	Y	Y	Y	Y	Y	Y	--	--	--
Fisheries Management[1]										
• Mark all salmon produced in hatcheries	Y	Y	Y	Y	Y	Y	Y	Y	--	Y
• Conduct net-pen rearing of striped bass for about 100,000 fish to supplant natural production	Y	Y	Y	Y	Y	Y	Y	--	--	Y
Institutional Habitat Programs[1]										
• Integrate habitat restoration programs from other federal and state agencies, including the Anadromous Fish Restoration Program	Essential Element[4]	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element
• Establish CALFED Regulatory Team to expedite habitat restoration permits	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element
• Establish program to use clean dredge material for Delta levee and habitat restoration	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element
• Encourage/provide incentives for farmers to leave habitat areas undisturbed	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element	Essential Element

Footnotes

1. Some activities include additional sub-activities explained in greater detail in the detailed descriptions of the alternatives.
2. As indicated in Fish Protection and Transport activities in the detailed descriptions of the alternatives.
3. "Prioritized areas" indicates that geographic areas, specific locations, and levels of implementation have yet to be determined.
4. "Essential Elements" are non-quantified activities included in every alternative above the core level of implementation. Footnote #3 ("prioritized areas") also applies to these elements.

"Y" means the activity will be implemented uniformly across those alternatives in which it is included.

"--" means that the activity is not included as part of the alternative.

The units for each activity can be found in the lefthand column, following the activity description

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